



The Coal  
Authority

Open early engagement - This means that a procurement idea is currently active; it is in the early stage of development and judging interest from potential suppliers.

The Coal Authority was established by Parliament to undertake specific statutory duties, set out in the Coal Industry Act 1994, associated with licensing coal mining operations; managing property and the historic legacy arising from the ownership of the coal reserves and underground workings; settling subsidence damage claims not falling on coal mine operators and providing access to coal mining information.

We operate 47 sites where mine water is pumped to a treatment scheme before being returned to a water course. Flow rates range from about 20 L/s to 400 L/s. Treatment schemes comprise cascades, settlement pond and reed beds. Raw mine water is generally acidic and in some cases it is chemically dosed. The main contaminant in raw mine water is dissolved iron; treatment schemes generally aim to reduce the total iron content to <3 mg/L. Pipe lines require pigging or jetting to control the build-up of ochre deposits.

The dissolved iron forms an iron oxide known as ochre that precipitates on exposure to atmospheric oxygen. Ochre builds up in the settlement ponds and reed beds. The Coal Authority removes the ochre on a periodic basis.

The measurement of ochre in settlement ponds is required for the following reasons:

- For The Coal Authority to establish the quantity of ochre
- To optimise the removal of ochre from settlement ponds to reduce cost

The Coal Authority has explored methods to undertake surveys using remote-controlled boats with sonar technology.

This has highlighted that the cost of the survey equipment is dependent upon the skill level of the operatives. For example, professional surveyors are likely to use a range of methods for verification of their results whereas site operatives

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require a single method of measurement that requires no skills in surveying techniques. This increases the capital cost of the survey equipment required.

The Coal Authority is now considering outsourcing this activity to a third party that has transferable experience in surveying sediment in water bodies. Ochre levels are likely to require some manual intervention because there may not be a defined transition between the ochre and water phases.

There may be a range of suitable measurement techniques including:

- Sonar boat type equipment
- Underwater laser scanners or LIDAR
- Drone technology

The Coal Authority has circa 100 settlement ponds at 47 sites, generally situated in the North and Midlands of England; Mid Scotland and South Wales.

We are exploring options to inform a possible future tender to gather information on measurement techniques that could be utilized for this activity along with methods for data presentation. The tender may include provision for the measurement of ochre levels as follows:

- On a one-off basis to determine ochre quantity at a particular site
- For a full programme of annual measurements at each site

We are aiming to deliver an optimal outcome in terms of accurate ochre measurement. We have not yet decided upon what the model for delivery should be for this requirement.

We would like to invite interested suppliers to meet with us at our Mansfield office during March / April 2018 to better understand our requirements and offer suggestions on how we might fulfil our objectives through a future tender process. Suppliers are invited to provide contact details for this to be arranged.

If you are interested in attending this event or are unable to attend but would like information sent to you please express your interest by contacting us at [peterkobryn@coal.gov.uk](mailto:peterkobryn@coal.gov.uk) no later than midday Friday 23 March 2018.

Participants should note that we reserve the right to use any information shared within this market engagement to develop a mature service specification for future procurement purposes. Any costs incurred by participating in this exercise must be borne by the participating organisations.

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Following this exercise we shall determine if and how we will approach the market to secure the services.

Please note that any future procurement will be subject to a separate advertisement and participation in this market engagement event will not automatically entitle any organisation's involvement in this procurement.